The international entrepreneurial dynamics of accelerated internationalisation

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Abstract
The initial stages of internationalisation, prior to firms having established their definitive sources of advantage, remain the relatively unexplored area of the international business (IB) literature. At these early stages, where firms are seeking to establish themselves, and new multinational firms are appearing to exploit new opportunities created by globalisation, the entrepreneurial aspects of internationalisation come to the fore. In this paper we aim to delineate an emerging field of IB scholarship: we use the appearance of international new ventures, and the phenomenon of accelerated internationalisation that they feature, to identify a set of issues that has slipped through the net of some of the existing IB frameworks. We propose that the salient features of accelerated and early internationalisation by the newly internationalising firm are best captured in a framework that is found at the intersection of entrepreneurial and internationalisation perspectives, which we propose be known as international entrepreneurial dynamics. We discuss such a framework in terms of entry points and pathways mapped by firms as they probe the IB arena, and the key factors that impinge on behaviour and strategic choices. In line with recent developments in the entrepreneurship literature, these are grouped into three milestones of entrepreneurial processes that extend across national boundaries: (1) the discovery of new opportunities; (2) the deployment of resources in the exploitation of these opportunities; and (3) the engagement with competitors. Implications for MNE and internationalisation theory are discussed.

Keywords: international entrepreneurship; IED; born globals; OLI; accelerated internationalisation

Introduction
The field of IB studies burst onto the academic stage in the 1960s with the broad-based discovery of multinational enterprises (MNEs), which were recognised as posing new issues for scholarship. Why did firms run the risks of internationalising? What were the sources of competitive advantage for MNEs over their domestic rivals? Were there distinctive patterns in the way that firms internationalised, and did these differ according to the national origins of MNEs? Such were the ‘big questions’ that launched the field, and which sustained it during its first few decades (Buckley, 2002).

With the rise of postwar globalisation, which accelerated in the 1980s and 1990s, things began to change. Many more firms internationalised, some staying quite small despite growing as they internationalised – a pattern quite different from the earlier phase,
where firms had to be firmly established and large in order to negotiate the perils of internationalisation. The impediments to internationalisation, such as barriers to inward and outward foreign direct investment (FDI), started to come down. Institutional changes, which included harmonisation of international law and business practices, strengthened protection of intellectual property rights, and the advent of sophisticated IT systems and the Internet created new opportunities for interaction across both country and firm boundaries. Many new players began to appear almost instantaneously – the so-called ‘born globals’ and, more generally, the ‘international new ventures’ whose primary characteristic was their accelerated internationalisation.

Now, in the 21st century, a case can be made that the impact of globalisation is being felt as many new kinds of international new venture are emerging, and as the possibilities for networking and expanding through partnerships as well as mergers and acquisitions are growing. These developments offer new opportunities, new entry points into the global economy, and new pathways for international expansion, and are doubtless involved in the reasons why so many firms have been able to accelerate their internationalisation. The need to keep the frameworks utilised in IB studies abreast of these developments is also pressing. In this paper we address this issue, using the phenomenon of accelerated internationalisation to offer an international entrepreneurial dynamics (IED) framework to serve as a complement and addition to the current conceptual toolkits used in IB research.

Within such a framework, we propose that all firms engaging in their early stages of internationalisation are, in a sense, like these new species of internationalising entities, in that they display in their early stages the entrepreneurial features of internationalisation rather than the traditional activities and advantages associated with the mature and well-established MNE.

By way of being concrete and setting the tone for the discussion to come, let us start with an example. Proteome Systems Ltd (PSL) celebrated its IPO in October 2004, nearly five years after its founding, by which time it was already an established and influential firm in the new field of proteomics, or protein sciences. The company was founded by a former university professor, together with five collaborators from the School of Biological Sciences at Macquarie University, Sydney. Searching for a direction in which to move, the newly founded firm developed its own proteomics platform, consisting of mass spectrometers, liquid chromatography and reagents, initially as a means of identifying and purifying human proteins of therapeutic interest. But it rapidly became clear that there would be a market for such pioneering instrumentation in the novel and global business of proteomics, successor to genomics as avant-garde in the biological sciences. And instead of seeking to build a proteomics platform de novo, from its own resources, the company instead took the step of assembling the pieces of such a platform from the best international suppliers of hardware and software – Shimadzu Corporation of Japan, Sigma-Aldrich, Millipore Corporation, Thermo-Finnigan, Alpha Innotech, and, not least, IBM Bioinformatics.1

Once the firm was formed and was promoting its initial product, it sought to develop its customer base internationally from inception. Its pattern of market expansion was rapid and opportunistic, and focused on gaining access to resources wherever they might be available. In the US it expanded by acquisition of the pieces left after a biotech firm in Boston went out of business. In Japan it entered into a strategic alliance with an established trading house, Itochu, which was itself looking to enter high tech areas. In Malaysia it entered the market through the services of an agent. In other words, there was a heterogeneous, entrepreneurial process of market entry and resource deployments as and when circumstances and opportunities presented themselves, but always with a view to sustaining a global market presence from the outset.

We see PSL as an interesting firm for IB scholars precisely because the existing frameworks dealing with the sources of advantage of international firms and internationalisation capture only some of the features of this firm’s international expansion. This firm did not internationalise against the odds, undergoing a lengthy learning process as it expanded from one country to another – as we would expect from existing internationalisation frameworks, and particularly from the Uppsala sequential learning model. Rather the firm and its distinct business model were rapidly enfolded into the global biotech economy as the natural place in which to do business – dealing with sophisticated suppliers of protein science instrumentation, and sophisticated customers, around the world. It would have been perverse or outright impossible for PSL to limit its business to one country only.
Nor does PSL draw its advantages solely from sources captured in the traditional frameworks, such as the OLI (ownership, locational and internalisation) framework based on comparative static, transaction cost reasoning. PSL draws its advantages from the assembly of a proteomics platform, to which numerous international firms contribute, and which is coordinated and marketed as such by PSL. Hence while PSL draws competitive advantages from its core intellectual resources, which are internalised, it builds and develops its actual product from resources garnered where they are available. Hence it is not just PSL’s owned assets that are exploited in international markets, but its ability to manage and access the assets of others through inter-firm networks. And these assets – such as Shimadzu’s mass spectrometry capabilities – are also found in numerous locations. So PSL is playing a crucial coordinating role across these existing international players with their own competitive advantages.

Undoubtedly the existing frameworks in IB continue to provide us with powerful insights into the workings of the international economy and MNEs. The point we are making is that they are bounded in their scope, and give limited traction in many of the cases that are of significant interest in the global economy in the early years of the 21st century, such as cases of outsourcing of critical resources and accelerated internationalisation exemplified in the case of PSL, and found in the early stages of internationalisation of firms more generally. In this article we propose that the field of IB has everything to gain by tackling such cases in a fresh light, namely one that emphasises the spectrum of IED involved in the appearance of such firms. We see such a fresh perspective as a complement and addition to the existing frameworks, with their emphasis on long-established MNEs, comparative statics, and transaction costs reasoning.

Such an emerging field of scholarship places the emphasis on the entrepreneurial initiative associated with newly internationalising firms, their early entry points into the international economy and sometimes very rapid paths to becoming established international or global players, and the outcome of their early engagement in competition with other international firms. This is a field of scholarship that is closely aligned with current developments in entrepreneurship research (Shane and Venkataraman, 2000), promising and facilitating co-evolution and cross-fertilisation between academic fields (Etemad and Lee, 2003). Our focus is on the entrepreneurial processes that stretch across the discovery of new business opportunities in an international context to aspects of exploitation including the redeployment of resources and the ultimate engagement with international competitors that takes place before organisational and industry maturity sets in. It is our concern in this paper to provide some justification for the emergence of this new field of scholarship, and highlight some of the ways in which it offers solutions to issues that remain unresolved in the existing IB paradigm. In doing so, we aim to provide direction and a basis for future research, and to propose new theoretical approaches in an increasingly important field in the IB literature.

The paper is structured into three main sections. The first section illustrates the emergence of new types of multinational in the global economy. Our focus is on how their emergence and accelerated internationalisation are linked to substantial changes in the IB environment, and it explores the limited applicability of existing theories and paradigms in the IB literature in capturing the reality of the development of these firms. The second section captures the issues faced by new types of multinational firm more generally in their early stages of internationalisation. It delineates our view of the new field of scholarship – IED – and identifies three conceptual organisational points or milestones around which the entrepreneurial processes that extend across national boundaries may be discussed. These are: (1) the discovery of opportunities; (2) the deployment of resources in the exploitation of these opportunities; and (3) the engagement with international competitors. The third section then discusses how these three aspects of international entrepreneurship may be incorporated within the field of study of IB. Finally we offer some concluding comments, directed towards the question whether this emerging field of scholarship may prove to be supportive of empirical and theoretical work in future years.

**New currents in the field of IB**

In the past decade, a host of new firms have arisen that are active in the global economy while bearing little resemblance to the giant multinationals of popular imagination. By the beginning of the 21st century there were over 64,000 firms operating internationally, controlling at least 870,000 foreign affiliates (UNCTAD, 2003). How much do we know about these firms in terms of their origins, their
mode of operation, their strategies and organisation (Stopford, 1998)? Certainly they include traditional MNEs, which have vast resources, operations in more than 100 countries, and multiple sites covering R&D, production, logistics, marketing and customer support – the General Electrics, GMs, IBMs, Motorolas, ABBs, NECs, Siemens, and Unilevers. But these firms are in a very small minority, albeit a very influential minority. The majority consists of firms that are quite different from these conventional and resource-rich MNEs in terms of origins, growth patterns, and organisational forms and strategies, and which have received much less conceptual and empirical attention.

The new species of MNEs in the global economy

The large number of firms that have come to populate the global economy include, for example, smaller MNEs, in terms of resources, staff and capital, which we might refer to as ‘infant multinationals’ (Lindqvist, 1991) or ‘micro-MNEs’ (Hedlund, 1993; Dimitratos et al., 2003; Ibeh et al., 2004). They include small or medium-sized firms that originate from the advanced industrial countries but attack the world market with such vigour and with such innovative strategies of integration that they can be classified as ‘newcomers’. Firms like the Dutch foodstuffs firm Nutreco, or the German renal dialysis machines firm turned global health services provider, Fresenius, or the US-based CMS Energy, which became a global energy giant within a decade, are all examples of this new phenomenon.

Other firms are included that almost bypass internationalisation as a process, as they are started and operate from day one in global markets as global players, servicing their customers wherever they are to be found. These are the firms that have been called ‘global start-ups’, ‘born globals’, or ‘international new ventures’ (Rennie, 1993; Oviatt and McDougall, 1994, 1995, 1997, 1999; Bloodgood et al., 1996; Kohn, 1997; Madsen and Servais, 1997; Knight and Cavusgil, 2004; also Rialp et al., 2005). These firms are increasingly active in the international economy; they are all characterised by their accelerated internationalisation (Shrader et al., 2000); and they are thereby changing the dynamics of international competition (Coviello and McAuley, 1999).

Another cluster of firms, many of which originate from the peripheral regions of the global economy, may be labelled ‘latecomer MNEs’ – because they arrive late on the international stage, but can thereby draw advantages not available to their earlier counterparts. These firms have pursued accelerated internationalisation over the course of the past decade and acquired global reach in a fraction of the time taken by their predecessors, typically on the basis of leveraging or reconfiguring the value chains of established competitors. Acer is a good example (Bartlett and Ghoshal, 2000), as are others from late-developing countries such as Li & Fung from Hong Kong (Magretta, 1998), or the Hong Leong group from Singapore and South East Asia (Yeung, 1999). Ispat International, started by an entrepreneur from India, is now the world’s most globalised steel company (Sull, 1999), and Cemex from Mexico has emerged as the world’s third largest producer of cement and the world’s most global supplier and producer (Roberts and Podolny, 1999). These are firms that Mathews (2002, 2006a) calls Dragon Multinationals, because they originate from the Periphery and appear on the global stage with sudden ferocity. Only a few years ago such firms from developing countries were widely viewed as being of ‘marginal’ significance only; this most definitely cannot be said of them today.³

The changing setting for IB research

The emergence of these new species of MNEs reflects ongoing and rapid changes in what Osborn and Hunt (1974) identify as the macro or aggregate environment. These changes include enhanced geographical mobility of individuals, more ready access to information about internationally dispersed resources and customers, and regulatory changes that further the integration of international markets for capital, products, and technology (Dicken, 2003).⁴ The new species of MNE are different from traditional multinationals in that they are created by internationally experienced individuals and global in their outlook already from inception, seizing the opportunities offered by an increasingly integrated and interconnected global economy (Chetty and Campbell-Hunt, 2004). As a result, firms identified as born globals or international new ventures have been found to target and penetrate international markets from very early on, and in some cases from the outset organise operations around internationally dispersed knowledge and resources (Jolly et al., 1992). Our Proteome Systems Ltd (PSL) case is one good illustration of these new species of firm. In contrast, what are today established multinational corporations had to be hardy and
self-sufficient as they launched themselves in often troubled international waters. Lacking international experience and information about the IB environment, they tended to step cautiously into foreign markets (Johanson and Vahlne, 1977, 1990), so that their foreign operations evolved only gradually into more firmly embedded relationships with actors in host country environments: hence the incremental internationalisation patterns observed among some of the older and now well-established multinationals (Johanson and Wiedersheim-Paul, 1975). In the inter-war period, European and US MNEs were forced to operate within a regime of increasingly protected and closed markets, and found themselves constrained to produce mini-versions of themselves as more or less self-contained and strategically independent national subsidiaries. They competed side by side with a number of domestic players, protected by tariff barriers and other impediments to competition and the transfer of goods across national borders. In the face of slowly integrating world markets after the Second World War, it took decades before MNEs started moving towards globally coordinated networks in a more systematic way (Sölvell, 1987; Bartlett and Ghoshal, 1989).

In the business environment that characterised the first three decades of the postwar period, the period that also saw the broad-based discovery of the MNE as an object for scholarly research, it was perhaps inevitable that theorising concerning the nature of the MNE should focus on its technological superiority compared with domestic producers. Theoretical development emphasised the importance of market imperfections, adding advantages of multinationality related to discriminatory pricing, transfer pricing schemes, and arbitrage across different tax regimes. Early formulations of the theory of multinational advantage, developed by such scholars as Hymer and Kindleberger in the 1960s, focused precisely on the means through which the MNE could mobilise its unique capabilities and trans-border assets to overcome perceived operational and informational deficiencies with respect to domestic rivals.

In the hands of Buckley and Casson (1976, 1998), Dunning (1980, 1988) and other contributors to the ‘Reading School’ this was elaborated into an extensive set of propositions concerning the sources of advantage – ownership, locational, and internalisation – available to a multinational firm that utilised internalised asset transfer and global value chains to maximise the potential to exploit its advantages (for a recent review of this literature, see Pearce, 2004). Thus the international firm was accommodated with the view of the firm as an efficiency-improving ‘island of organisation’ in a sea of market-mediated transactions, where the firm’s boundaries would be determined by the point where transaction costs of maintaining processes internal to the firm equalled the costs of outsourcing those activities to external suppliers. Thus they brought the international firm within the ambit of the transaction cost economics reasoning pioneered by Coase and generalised by Williamson (1979).

Historical circumstances in this way had a significant impact upon the selection of study objects, but also upon the theoretical approaches applied to understand and explain their fundamental nature and behaviour.

The point about the new species of multinationals is that their creation and evolution into global players has been imperfectly captured by the established IB literature. At the more fundamental level, the IB literature has tended to downplay the processes surrounding new firm formation and early evolution, and instead has contemplated mainly the nature of MNEs as already established and mature entities. Equally important, the type of formative and dynamic processes represented by the newly internationalising firm does not offer a good fit with essentially comparative and static approaches applied to understand the MNEs. Let us briefly review the creation of the OLI framework, not to target it for criticism, but to understand its fundamental scope and assumptions, to see why it provides limited traction when addressing the realities of the new species of multinationals and other firms engaging in early internationalisation.

Creating the OLI framework for capturing the nature of the MNE

The eclectic ownership–location–internalisation (OLI) theory of multinational activity became the arguably dominant view in the 1970s and 1980s, and continues to be perhaps the most influential theoretical account of the existence of MNEs as such, and of the sources of their advantages over domestic rivals. It is clear that the OLI theory never set out to capture new firm formation and early development processes, but is based squarely on the experiences of large, well-established international firms. The actual origin of firms, the process of the firm’s internationalisation, and the transformation of the sources of competitive advantage are of only
limited interest to the theory. Thus it has little dynamic content, and limited explanatory purchase on novel ways of implementing an internationalisation approach.\(^6\)

It is perhaps the limited concern with origins and early developmental processes that explains the theory’s strong reliance on what are assumed to be ownership advantages developed in the home country. Despite observed asset-seeking behaviour, aimed at protecting or augmenting already existing advantages (Dunning, 1998), there is limited emphasis in this theoretical account on the firm that moves internationally in order to acquire resources, or to enhance its existing resources and capabilities. There is little recognition in the theory for the firm’s expansion internationally being seen as a way of anticipating and building its competitive position – in a way that would not be possible in the firm’s domestic market, which may be too small, or too undeveloped, to serve such a purpose. Thus there is an important sense in which strategic elements are missing from the OLI framework.\(^7\)

Finally, with its emphasis on internalisation advantages, the established paradigm involves little recognition of firms whose primary competitive advantage rests in networks of external relationships. In this respect, it downplays or neglects that part of the strategy literature that has relatively recently come to argue for the competitive advantages that are tied to network positions. Such network positions may be associated with privileged and early access to knowledge and information, or the attractiveness or value as a collaborator that further enhances knowledge assimilation capabilities (e.g., Dyer and Singh, 1998; Gulati et al., 2000; Kogut, 2000). Dunning (1995, 2000) of course recognises the growing importance of inter-firm alliances for competitive advantage, but network relationships are seen mainly as a complement to the traditional ownership, location and establishment of assets abroad to exploit these opportunities. This alternative approach embraces the new species of MNE that captures in a sharp way the defining characteristics of firms that cannot draw on established advantages, but must make their advantages for themselves, internationalising in order to capture advantages that would otherwise not be available. It also captures the reality of all firms as they seek early internationalisation to become engaged in the global economy, a reality that has slipped through the net of traditional IB research and frameworks.

We now turn to outline the key features of IED – seen as a process sui generis, to be pursued as a core activity within the field of IB studies. In this framework we bring together both the essential features of the entrepreneurial process itself, seen as a dynamic process that disturbs the status quo, and various aspects of the process of discovering new business opportunities and exploiting them through internationalisation and engagement in competition.\(^8\) We see strong advantages to such a combination, as entrepreneurship on its own can be assessed too easily without regard to the business realities involved, and internationalisation can be viewed too much as an issue involving established multinationals, and not enough as an entrepreneurial process upsetting the status quo.

The field of entrepreneurship is itself undergoing intense and potentially far-reaching change, and we wish to import into the IB literature the most dynamic of these scholarly shifts. A recent review of the literature by Shane and Venkataraman (2000) provides us with a starting point. The authors begin...
They then outline their way of developing a framework that should guide research on entrepreneurship. They reject approaches that are based on equilibrium analyses, on the grounds that entrepreneurial dynamics make sense only in disequilibrium settings. While ascertaining the role of the individual in entrepreneurial processes, they also reject approaches based on the attributes of certain people (and thus avoid the inconclusive debates over what personal characteristics go to make up the entrepreneur).

Shane and Venkataraman offer as definition of this field that it is ‘the scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited’ (2000: 218). What then distinguishes IED from traditional entrepreneurship studies is that it is concerned with processes that extend across national boundaries, and with the existence of a set of unique opportunities and constraints that influence the nature and unfolding of the entrepreneurial process (McDougall and Oviatt, 2000; Acs et al., 2003; Wright and Dana, 2003). Specifically, the aggregate of locally contained and ‘sticky’ resources and knowledge offers a global opportunity set that can be of unique value to those who can identity and act upon it (e.g., Pavitt, 1988; Porter, 1990; Maskell and Malmberg, 1999). At the same time, geographical distances and institutional differences impose persistent but to a certain extent negotiable constraints on the discovery and exploitation of the opportunities inherent in the global opportunity set. These particular aspects of IB form the cornerstones for addressing and analysing entrepreneurship from an international perspective.

While accepting Shane and Venkataram’s basic point of departure, IED emphasises the point that the exploitation of opportunities extends beyond the founding and initial organisation of a legal entity (Madsen and Servais, 1997), to include processes of change involving subsequent pathways of organisational development and the firm’s adaptive engagement with international competitors. Although there is no distinctly observable point that marks the end of entrepreneurial processes, and indeed it could be argued that entrepreneurship and adaptation are ever present in the activities and strategising of firms, we propose that the study of entrepreneurial dynamics becomes less fruitful under mature industry conditions, where competitive interaction reflects entrenched competitive positions and is associated mainly with marginal operational adjustments.

While entrepreneurial processes typically involve the parallel execution of a variety of tasks and activities, the significance of the international dimension is highlighted by distinguishing between three organising principles, or milestones, of the entrepreneurial process:

1. the discovery of opportunities;
2. the deployment of resources in the exploitation of these opportunities; and
3. the engagement with international competitors.

Very much in line with the suggestions by Hägerstrand (1985, 1991), the first of the milestones connects the geographical movements of the individual and prospective entrepreneur to the firm’s potential and fundamental entry point into the global economy. The deployment of resources milestone involves a more elaborate scheme to capture these entry points and how they map into different pathways of development and growth in the international marketplace. Engagement with international competitors, finally, focuses on the consequences of competition for the strategy and organisation of internationalising firms in their early stages of development.

The discovery of opportunities

The discovery of new business opportunities is concerned with the process by which the individual identifies unobserved or latent combinations of resources and customer demand, including the identification of new, innovative solutions to the supply of already existing products and services (Schumpeter, 1934, 1942). It may also be associated with the more or less exact imitation of ideas and business concepts that have already been pioneered and proven by others, and application of these ideas and concepts in new contexts (e.g., unexploited geographical markets; Ward, 2004). The discovery of new business opportunities takes place in a disequilibrium setting, implying asymmetrically dispersed knowledge, subjective world views, and unanticipated change caused by incomplete information and genuine uncertainty (Hayek,
It is the entrepreneur who discovers or ‘sees’ a new business opportunity (Kirzner, 1973, 1979, 1985). Discovery connects prior experience and knowledge with observations of external conditions and events, requiring immersion in the ‘field’ to determine whether a perceived opportunity indeed represents an attractive profit opportunity (Shackle, 1973, 1979). It is typically the observation of some external conditions or events that generates the impulse or vision that triggers further pursuit of a particular business idea (Aldrich and Whetten, 1981; Butler and Hansen, 1991; Aldrich, 1999), involving elements of evaluation and refinement that may occur sequentially, simultaneously or typically as part of an iterative process (Long and McMullan, 1984; Herron and Sapienza, 1992; Ardichvili et al., 2003).

As in the case of PSL, the discovery of new business opportunities builds on prior experience and attention to external conditions and events. It is therefore in several ways highly dependent on the geographical movements of individuals and prospective entrepreneurs (Ellis, 2000). Place-bound individuals tend to develop interests, skills and knowledge that reflect local agglomerations of knowledge and economic activity, biasing spheres of attention and the interpretation of what constitutes a promising new opportunity. Likewise, the geographical movements and whereabouts of the individual determine the scope of social networks, which can serve as important conduits for information about new business opportunities (Zander, 2004). Generally, the expectation is that the more internationally travelled and experienced the individual, the higher the probability that he or she sets in motion the transformation or integration of traditionally ‘sticky’ agglomerations of knowledge and economic activity. These are also the individuals who tend to discover business opportunities representative of the new species of MNE, combining geographically dispersed skills, knowledge, and resources with sales that are predominantly generated outside the entrepreneur’s home country.

Yet fine-grained data on the international movements of (prospective) entrepreneurs and evidence concerning the effect of such movements on opportunity recognition are scarce and scattered in the literature, and herein lies a substantial and largely untapped potential for further theoretical and empirical work. While the extant literature on born globals agrees that the international experience of entrepreneurial teams or managers influences their international outlook and the firm’s internationalisation process (e.g., Oviatt and McDougall, 1995; Madsen and Servais, 1997; Crick and Jones, 2002; Andersson and Wictor, 2003; McDougall et al., 2003), much more is to be discovered about the various dimensions of international movements and experience, how it may be linked to the concept of global vision, and how it coincides with typical ways of discovering and connecting geographically dispersed skills, knowledge, resources and customers (Dimitratos and Jones, 2005; Zahra et al., 2005). To capture the critical drivers of opportunity recognition (determining for example the likelihood of identifying new, innovative solutions vs imitating already pioneered concepts), future operationalisations may make a distinction between scope and depth of exposure, that is, the number of locations an individual entrepreneur has been exposed to and the length of stay in each location, and also account for the diversity of locations in terms of skills, knowledge and economic activity (Zahra et al., 2000).

Resource deployment

The individual’s decision to act upon a discovered opportunity depends on prior personal skills and knowledge and perceived support from social networks (Krueger and Brazeal, 1994; Krueger, 2000; Krueger et al., 2000). As in the case of opportunity recognition, the chain of influence that runs from geographical movements through the formation of social networks and business contacts contains important information about the type of organisation that individuals are most likely to establish. The decision to pursue a discovered opportunity involves the creation of a firm as a legal entity, in most cases followed by a period of active resource deployment (Katz and Gartner, 1988). It is the way in which both internal and external resources, activities, and routines are coordinated and continuously redeployed that creates the unique characteristics of the firm and determines its level of success in the marketplace, but also as we shall see in a moment constrains its further development.
In the conventional approach to discussing the impulse to internationalisation, firms are seen to be taking with them abroad the competitive advantage built up at home, to a large extent through the internalisation of resources, activities, and routines. By contrast, the new species such as born globals and latecomer MNEs have often been concerned not with exploiting advantages built up at home, but with leveraging or gaining access to dispersed skills, knowledge, and resources through their international operations. They further tend to rely extensively on international cooperative agreements, partnerships and joint ventures, which reduce the high level of risk involved in their leveraged strategies, in combination with internalised operations to achieve the desired coordination of resources, activities and routines (Oviatt and McDougall, 1994). In the case of PSL, it was a natural step to tap the resources of leading firms supplying parts of the proteomics platform in their different national locations, and for the founders of the firm to be ‘drawn’ into these global alliances rather than create them against the ‘resistance’ of the international economy.

The established literature on the process of internationalisation again reflects its IB origins and the historical concern with large multinationals. Internationalisation theory has tended to use a ‘push-oriented’ concept, with the outward movement of the firm propelled by some pre-existing competitive advantage and economic objectives. Thus Welch and Luostarinen (1988: 36) define internationalisation as ‘the process of increasing involvement in international operations’. This definition implies that internationalisation is a unilinear sequential process of ‘increasing’ involvement, which excludes the cases where firms start with an international presence or cut back on their international exposure. Calof and Beamish (1995: 116) sought a way around this problem with their definition of internationalisation as being ‘the process of adapting firms’ operations (strategy, structure, resource, etc.) to international environments’. This would appear to be a superior formulation, in that it does not pose any specific direction on the process of engagement with the international economy.13

To accommodate the entrepreneurial dimension of accelerated internationalisation, we submit that internationalisation is to be reconceived as a ‘pull’ just as well as a push. It is the exposure to the resources and opportunities in the IB environment that draws entrepreneurs and firms into involvement across national borders, through contracting, licensing or other transacting relationships. Bearing this in mind, internationalisation may be defined as the entrepreneurial process of the firm’s becoming integrated in international economic activities. The term ‘integration’ covers cases of both push and pull, and provides a more comprehensive formulation, seeing the global economy as pre-existing and offering resources to the firm that acts upon entrepreneurial insight. In addition to covering the well-known and studied cases of export activity and FDI, such a broadly based definition encompasses the experiences of the new species of multinational found in the global economy. It emphasises the point that the discovery of new opportunities, new firm formation and internationalisation are processes of engagement and creation of inter-firm linkages of the global economy, driven by entrepreneurial observation, calculation, and strategic action.

These considerations enable us to construct a new and general perspective on the internationalisation process, which starts with the geographical movements and pre-venture activities of the entrepreneur, and translates into differentiated entry points and pathways of resource deployment in the global marketplace. Introducing a dimension that captures the relative importance and use of external resources, these entry points and pathways may be plotted against a framework that in relative terms captures:

1. the geographical dispersion of employed skills, knowledge, and resources;
2. the degree of internationalisation of sales; and
3. the predominant way of accessing and coordinating resources, activities, and routines (Figure 1).

Obviously, in measurement terms these entry points are open to almost infinite variation and disaggregation, but we are here emphasising the basic dimensions that are most frequently discussed in the extant literature. Making the distinction between skills, knowledge, and resources and sales is an important extension of previous frameworks (Oviatt and McDougall, 1994), because it captures the fundamental role of the entrepreneur as an arbitrageur or innovator in between markets for resources and customer demand.

While identifying three key features of all firms that become engaged in the global marketplace, the
framework is flexible enough to accommodate the introduction of a number of additional considerations that may distinguish old from new species of multinationals. For example, in the context of externally sourced skills, knowledge, and resources, it may prove useful to make a distinction between arm’s length contracts and embedded relationships, or more generally to consider the relative use of in-between forms of market coordination. In terms of international sales, a further differentiation could be made with regard to the numbers of customers served and countries targeted, and the range of alternative distribution or sales channels employed in the exploitation of new entrepreneurial ideas (McDougall, 1989). Finally, by allowing for the existence of multiple entry points along three continua the framework circumvents the need to identify a strict and commonly agreed-upon definition of born globals or international new ventures. Instead, it makes possible the comparative study of these new species and the more traditional MNEs, in this sense unifying rather than fragmenting theoretical and empirical discourse in the IB field.

By probing more deeply into the history of the individual entrepreneur, the opportunity recognition and resource deployment milestones of IED extend the scope of IB research and international entrepreneurship to processes that precede the creation of formal or legally defined firms (Ricks, 1985; McDougall and Oviatt, 2000). As an important consequence of this, internationalisation should be perceived as a process that does not start with the firm’s first engagements in foreign markets, but has an important and potentially very influential pre-venture history. While much is to be learnt about the relationship between the individual’s geographical movements and the origin and nature of entrepreneurial ventures, the analysis of how fundamental entry points into the global marketplace relate to firm survival and various measures of performance represents a second unexplored but from a managerial point of view highly relevant issue for future study.

Pathways of resource deployment

It is expected that entry points into the global economy have a significant impact on further pathways of resource deployment. Depending on their respective entry points, entrepreneurs and the firms they create may become particularly knowledgeable about certain ways of accessing and coordinating resources, activities and routines, tainted by personal preferences and the organisational modes the entrepreneur is most familiar with (Madhok, 1998; Burton, 2001; Johanson and Vahlne, 2003). Once the firm is established, inertia and endogenous processes lead to predictable yet potentially ineffective applications of practices and organisational forms, for example with respect to the employment of cooperative agreements and strategic alliances (e.g., Walker et al., 1997; Gulati and Gargiulo, 1999).

Yet, given overall expectations about path dependency and stability in terms of resource deployment, it may well prove to be the case that certain entry points into the global economy are more unstable than others. To illustrate, entrepreneurial ideas that spring out of the global opportunity set sometimes reflect complex yet comparatively transparent arbitrage across national borders, where initial sources of profit depend only to a limited extent on the coordination of resources, activities, and routines within the firm itself. Under these conditions, causal ambiguity in terms of existing relationships to other market participants and how these relationships were developed may offer only weak and short-term protection against imitation. Whether by force or by design, the entrepreneur may subsequently feel impelled to seek a more protected position on the basis of internalised resources, activities and routines, supported by learning processes ultimately aimed at upgrading knowledge in-house. In this respect, there may be an initial reversion of the typical long-term movement towards division of labour and outsourcing that has been suggested by some authors (Langlois and Robertson, 1998).

As for the geographical location of activities, limited managerial resources and the complications
associated with knowledge exchange and innovation across geographical distances may make entrepreneurs increasingly inclined to concentrate resources and activities closer to one distinct home base. In the short term, the overall effect in the combined case is an increase in the relative importance of internalised resources, activities and routines, and a reduction in the geographical dispersion of employed skills, knowledge and resources. This is to be contrasted with the evolution and pathway of resource deployment associated with traditional MNEs, or even with born globals that follow traditional but accelerated internationalisation processes (Hashai and Almor, 2004).

Much more can and needs to be done to map out the relative occurrence of different entry points and pathways into the global marketplace, and to understand their sustainability and performance implications. Oviatt and McDougall (1995: 39) conclude that: ‘No one knows whether the survival probability for global start-ups will be any better or worse than for domestic new ventures’, but this should not discourage further empirical work. Specific questions include how different entry points affect the survival and performance of firms, and whether firms starting out from the same entry point but subsequently adopting different pathways of resource deployment experience different degrees of success. Additional questions of more narrow scope include how firms operating on the basis of external market relationships may overcome dependency on single and powerful firms in their network (Coviello and Munro, 1997), and whether early or late establishment of in-house market channels has any significant impact on performance. These are all questions open for examination and solution within the framework of IED.

**Competitive interaction**

In the process of exploiting a new business opportunity, the entrepreneur must deal with competition, whether in the process of seriously attacking incumbent firms or responding to imitation by followers. In this context, the international dimension introduces a unique element that impacts on the nature of competitive interaction: historical, institutional and cultural biases that may influence the way in which entrepreneurs perceive and exploit new business opportunities (Toyne and Nigh, 1998; Busenitz et al., 2000; Young et al., 2003). These biases will be revealed in the entrepreneur’s propensity to rely upon external rather than internal skills and resources, and will be reflected for example in the preferred mode of entering new markets. When pioneering, imitating and incumbent firms ultimately meet in the international marketplace, the effects are likely to be observable in adapted and changing pathways of resource deployment.

Among the new species of multinationals, competitive interaction is preceded only to a limited extent by the co-evolution of firms that share similar operational contexts or the same historical, institutional or cultural heritage (Craig et al., 1992; Aldrich and Fiol, 1994). Although observations and the social networks that underlie the entrepreneur’s combination of resources and customers may come from broad exposure to the IB environment, only a small number of firms can be expected to develop culturally and institutionally unbiased strategies and ways of organising. In other words, new start-ups may ultimately find they are competing in a global business environment, in the same markets, and possibly on the basis of very similar product offerings, but as they become more firmly locked in competitive interaction differ substantially in terms of entry points and pathways of resource deployment. For the case of PSL, competitive interaction started with other firms seeking to exploit the new proteomics opportunities, including established and more traditionally organised instrumentation firms (such as General Electric) that are positioning themselves with regard to the new field of proteomics.

Competitive interaction between firms representing different entry points and pathways of resource deployment involves adaptation and should ultimately lead to a selection of superior business practices (a process that, in contrast to Schumpeterian innovation, is representative of Kirznerian equilibrating dynamics). Yet the process of strategic adaptation and adjustment that takes place when pioneers and imitators ultimately meet in international markets, or when industry incumbents are challenged by firms drawing upon significantly different configurations of resources, activities and routines (Djelic and Ainamo, 1999), is little explored in the international context. While the analysis of competitive interaction between internationally active firms can draw upon theories developed in other fields of research, notably institutional theory, the literature on competitive dynamics, and organisational ecology, it is a case where the field of IB represents a particularly
fruitful empirical context for testing, validating and expanding existing theoretical perspectives (Roth and Kostova, 2003).

Theoretical issues

Our starting point in this article is that the phenomenon of accelerated internationalisation is difficult to explain using existing IB frameworks alone. But in an important article Oviatt and McDougall (1994) offered some clues as to how MNEs might draw advantages from their accelerated internationalisation. As explained in Oviatt and McDougall (2005), their 1994 article sought to account for the phenomenon in terms of four streams of literature: internalisation theory, alternative governance structures, sources of foreign location advantage, and sustaining competitive advantage. In this article, they proposed that successful international new ventures (INVs) exhibit four basic elements:

As they usually suffer from a poverty of resources, they internalize a minimum proportion of their assets (Element 1) and focus on less costly governance mechanisms (Element 2), such as network structures, to control a greater percentage of vital resources than mature organizations would... they gain foreign location advantages from private knowledge that they possess or produce (Element 3), and make it sustainable through one or more means of protection – imperfect imitability, licensing, networks, and direct means, such as patents (Element 4). (2005: 5-6)

None of these theoretical elements owes anything specifically to globalisation – apart perhaps from a bias towards reliance on networking. Our aim by contrast is to develop a framework that explicitly accommodates globalising tendencies, and locates accelerated internationalisation as a phenomenon to be linked to globalisation – to broader geographical movements of individuals and to the processes of closer integration and inter-firm connections in the international domain.

We have used the phenomenon of accelerated internationalisation to propose a framework of IED that goes beyond the narrow study of the nature and operations of international new ventures, spanning the wider sequence of opportunity recognition, resource deployment, and competitive interaction. To summarise and recapitulate, the key points in our view of IED are entry points determined by the process of discovering new business opportunities (that is, how individuals connect skills, knowledge and resources with potential customers in the IB arena), pathways of resource deployment that follow from these entry points (that is, typically path-dependent processes that unfold over time), and the adaptation of resource deployment decided by the firm’s engagement in competition. We wish to be able to apply the insights of our account of IED in a way that captures how globalisation facilitates and encourages the engagement of entrepreneurial ventures with their international counterparts, or what we have called firms’ integration in the global economy. These and a set of other topics concerned with the early stages of firm development (Zahra, 2005) offer rich potential for further empirical and theoretical development in IB research.

The emergent field of IED takes as its starting point the experiences of the new species of multinationals in a changing IB environment, and generalises these experiences as the early stages of internationalisation of all firms in the conditions created by globalisation. Our approach is one that views the firm’s internationalisation not through a strict sequence of ‘stages’, nor as a result of comparative static advantages, but through pathways that reflect entrepreneurial observation and strategic action. Overall, it is a perspective that emphasises how the pre-venture activities of entrepreneurs affect internationalisation paths, and perceives internationalisation as integration – that is, internationalisation is neither push nor pull, but the process of discovering, integrating and adapting new business ideas into the structures and networks of the global economy.

The experiences of firms engaging in early internationalisation are only to a limited extent understandable and explainable in terms of the existing paradigms of IB research, such as OLI or the Uppsala School of incremental internationalisation. From the OLI perspective, modified or otherwise, the MNE exists because of its possession of home-grown and largely internalised resources, superior to those available to a domestic competitor. It makes it clear that the prevailing view has been built around traditional and incumbent MNEs that have created their international empires and are seeking to derive maximum advantage from them. Through the internalisation principle, it rules out cases where a firm can derive competitive advantage by building international networks to access skills, knowledge and resources that are otherwise not available.

This is, as we argue here, the case that fits many of the born globals and newcomer and latecomer multinationals. To make full sense of their early
and rapid internationalisation, we must go beyond the basic assumptions of the framework established by OLI. This involves recognition of the multitude of diverse organisational forms that have emerged in more recent years (Daft and Lewin, 1993), and of their ability to draw competitive advantage from external networks and inter-firm relationships rather than from internalised resources, skills and knowledge. Moreover, the early growth and experiences of any firm becoming engaged in the global economy can best be accommodated in a theoretical framework that is open to an appreciation of internationalisation as a process of entrepreneurial discovery, strategising under genuine uncertainty rather than economising, and dynamic processes of exploitation, redeployment of resources and learning.

We suggest that these are relevant viewpoints that can inform and open up a new field of IB scholarship in the coming decade. We envision that future developments will introduce theories on the behaviour, organisation and boundaries of the MNE that embrace the genuine uncertainty, subjective world views and disequilibrium processes that are characteristic of entrepreneurship. Under this overarching theoretical umbrella each of the milestones of the IED framework offers further opportunities for the formalisation of specific theoretical relationships and hypothesis-testing research. These relationships include the association between geographical movements of the individual, the formation of social networks, and their effects on opportunity recognition and entry points into the global economy. They also include the determinants of pathways of internationalisation and outcomes of competitive interaction between diverse organisational forms as they meet in the global economy, and ultimately the effects on firm performance and survival.

Concluding remarks
With the rise of globalisation and the emergence of new species of multinationals as the most dynamic and fast-moving firms in the global economy, we see a new opportunity for the field of IB studies to impress itself on a wider world of scholarship. We argue in this article that new foundations can be laid in terms of the scope of scholarly investigation, and in terms of disequilibrium and dynamic approaches, focused on process models and dynamics rather than comparative static and transaction costs frameworks. The key to such a new beginning is for the discipline to embrace frameworks that incorporate entrepreneurial dynamics in their international dimensions, including issues such as the discovery of opportunities, the deployment of resources in the exploitation of these opportunities, and the effects of engagement with competitors. These traditionally neglected fields of enquiry seem to offer vast and largely untapped opportunities for further theoretical and empirical developments. In this way, the discipline of IB will, we believe, be able to continuously generate the ‘big questions’ (Buckley, 2002; Peng, 2004) that will carry the field in the coming years.

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Notes
1 PSL is the subject of a Harvard case study: see West (2001).

2 In comparison, there were about 7000 internationally active firms in the 1960s, and 37,000 firms with 170,000 affiliates in the early 1990s (UNCTAD, 2003).

3 Yet more firms have always been ‘global’ but kept quiet about it, focusing their efforts on maintaining a commanding position in a very narrowly defined niche market. Firms like Hauni, which after several decades continues to supply 90% of the world market for cigarette-making machines, show that suitably focused geocentric firms can sustain their world position against the efforts of even huge multinational competitors like a General Electric. These are the species ‘global niche players’ and ‘hidden champions’ (Simon, 1996).

4 While broadly based and far-reaching, these changes are not necessarily universal. For a critical assessment, which emphasises the ‘triadisation’ of the international economy, see Rugman (2000).

5 There are of course numerous studies on the emergence and historical development of MNEs (Hertner and Jones, 1986; Wilkins, 1991), but the entrepreneurial processes surrounding the formative years have traditionally played a marginal role, both theoretically and empirically.
Dunning (1988) addresses the framework’s alleged inability to account for dynamics or the process of change of international production, but focuses mainly on the dynamics of investment development paths at the country level. Mathews (2006b), Dunning (2006) and Narula (2006) debate the respective merits of the OLI framework and its capacity to account for new features of internationalisation under conditions of globalisation.

The absence of a strategic element to the OLI framework is the focus of several recent studies. Melin (1992) initiated a discussion of internationalisation as driven by strategic motives, while Dunning himself (Dunning, 1995), and Dunning and Narula (1995), in the context of internationalisation of R&D activities, discussed such strategic issues, in the form of ‘strategic asset seeking’ FDI.

This coincides with Toyne and Nigh’s (1998: 865) suggestion that: ‘...we need to have a much deeper understanding of the process that creates, maintains, and eventually destroys the firm...’.

For an alternative perspective on non-convergence in the global economy, see Craig et al. (1992).

Hägerstrand (1991: 145) suggests that: ‘...there is a purely theoretical case for taking a closer look at the individual human being in his situational setting. To do so would improve our ability to relate the behaviour of small-scale elements and large-scale aggregates.’

The measurement of international experience has been rather rudimentary. Some of the employed and often binary measures include work experience outside the home country and experience in selling to foreign markets (Rueber and Fischer, 1997), previous international work experience and international schooling (Bloodgood et al., 1996), and experience in international business as part of international entrepreneurial orientation (Knight and Cavusgil, 2004).

The international business literature provides many examples of latecomer multinationals going abroad in search of new resources in the form of connections, partnerships and alliances, as well as customers and suppliers. Chinese firms expanding abroad from Taiwan, Hong Kong and Singapore certainly fit such a pattern. For example, Yeung (1999) surveyed firms internationalising from Hong Kong, and found a pattern of ‘horizontal integration’ to be important, while the same scholar surveying firms expanding abroad from Singapore found that their most common motive was ‘market reach’ – meaning their desire to encompass the leading markets and the assets within them in their field. Likewise Chen and Chen (1998) found that Taiwanese firms expanding abroad did so for the pursuit of assets available only in advanced foreign countries.

A similar tack is taken by Hitt et al. (1997), who link internationalisation to diversification, and define it as ‘expansion across the borders of global regions and countries into different geographic locations, or markets’.

Some authors have proposed general patterns of internationalisation among born global firms of specific entry points (Hashai and Almor, 2004), sometimes with a single focus on markets as opposed to the configurations of skills, knowledge and resources that underlie the entrepreneurial idea (Coviello and Munro, 1997).

According to Oviatt and McDougall (1994: 60): ‘...once successfully established, they [global start-ups] appear to have the most sustainable competitive advantages [in comparison with other international new ventures] due to a combination of historically unique, causally ambiguous, and socially complex inimitability with close network alliances in multiple countries.’ The point is that even these sources of competitive advantage may undergo significant change over time.

In Toyne and Nigh’s (1998) terms, societal conditions constitute the boundary conditions for activities at lower levels, for example through laws, rules and regulations governing business, tax structures, education of the workforce, and enforcement organisations. For empirical contributions, see for example Mayrhofer (2004).

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